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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,817	08/27/2001	Allan Rosencwaig	TWI-12810	2895

7590 02/06/2004

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EXAMINER

BROWN, KHALED

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/939,817		ROSENCWAIG, ALLAN	
	Examiner		Art Unit	
	Khaled Brown		2877	<i>AW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43 and 44 is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 12-21, 32, 33 and 37-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Iturralde (US 5955139).

Re clms 1,3-6,8-10,12,14-17,19-21,32,33,37-41: Iturralde discloses a method of manufacturing thin film elements comprising the steps of: depositing a plurality of thin film layers on a substrate (Col1 lines 15-16), monitoring the formation of at least some of the thin film layers during the deposition process (Col 3 lines 19-29), said monitoring step including the steps of; directing a narrow-band radiation probe beam to reflect off the layers on the substrate (Col 4 lines 4-14), monitoring the change in polarization state of the probe beam induced by the interaction with the layers and generating output signals in response thereto (Col 4 lines 20-40), and controlling the deposition process based on the monitored output signals (Col 8 lines 47-55).

Re clms 2,13: a predetermined range (Col 8 lines 56-59)

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Re clms 7,18,42: output signal includes 2w and 4w components (Col 5 lines 41- Col 6 line 2)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11,22-31 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iturralde (US 5955139) in view of Aspnes et al (US 5798837).

Re clms 11,22-31,34-36: Iturralde discloses the claimed invention as noted above including a monochromatic light source and that any source of monochromatic light can be used (Col 4 lines 8-14). However, Iturralde does not disclose the structure of the monochromatic light source being a broad band light source filtered by a monochromator. Aspnes et al teaches that a monochromatic light source can have the structure of a broad band light source filtered by a monochromator to insure accurate measurements (Fig 3, Col 5 lines 39-67 and Col 6 lines 19-30). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to fabricate the monochromatic light source of Iturralde from a broad band light source filtered by a monochromator because it would insure accurate measurements as suggested by Aspnes et al.

Allowable Subject Matter

Claims 43 and 44 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose or suggest "the plurality of thin film layers formed from materials alternating between high and low indices of refraction" in conjunction with the rest of the claimed subject matter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 9-29-03 have been fully considered but they are not persuasive. The applicant argues that Iturralde (US 5955139) does not disclose depositing a plurality of thin film layers (Remarks p. 9 line 16) or the manufacture of interference filters (Remarks p. 9 lines 11-12). However, Iturralde does disclose depositing a plurality of thin film layers (Iturralde Col 1 line 15). Iturralde invention is for the monitoring and controlling the thickness of "The deposition of thin films" and gives as one "example, films of silicon dioxide" (Iturralde Col 1 line 15). In response to applicant's arguments, the recitation of manufacturing an interference filter has not been

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given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dagenais et al 5354575, Iturralde 5665214, Nagayama et al 5610392, Lee et al 5835221 and Solomon et al 5900633.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khaled Brown whose telephone number is 703-306-5738. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 703-308-4881. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



KB
January 21, 2004

Frank Font
Supervisory Patent Examiner
Art Unit 2877